

Patent Claims

- Sub A<sub>1</sub> 5 1. Sealing arrangement (10,10') comprising two separate armature members (11,12) and a sealing ring (13,13') interposed therebetween and a clamping device (30) for clamping the armature members (11,12) against each other causing the intermediate sealing ring (13,13') to be loaded with a sealing force, said sealing ring 10 (13,13') being made of metal or similar material and having a substantially T-shaped annular cross-section, said T-shape being provided with two in opposite axial direction extending sealing wings (15,16), each with an 15 radially outwards facing sealing face (15a,15b), and therebetween a central, rather rigid stem (14) extending radially outwards and being provided with a combined gliding and support face (14a) to be supported against a counter face (22) in the sealing arrangement, each of said sealing faces (15a,15b) being conically shaped to be 20 supported against a radially surrounding, correspondingly conically shaped gliding and support face (21,25) in a corresponding armature member (11,12), each of said conical support faces (21,25) of said armature members (11,12) extends under a first, smallest cone angle (a), 25 whereas each of said said sealing wings (13,13') extends under a second, greatest cone angle (b), prior to mounting, and after mounting extends under said first cone angle (a) to form a tight sealing abutment against its corresponding support face (21,25), characterised in that 30 each sealing face (15a,16a) of said sealing ring (13,13') has the same axial extension as that of the associated sealing wing (15,16), and each sealing face (15a,16a) has a continuous, rectilinear extension in axial direction of the sealing 35 wing (15,16), and each sealing wing (15a,16a) is tapering in axial direction from the stem (14) and is elastically deformable in relation to the stem (14) in order to secure a

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controlled elastic deformation of the sealing wing (15,16).

5 2. Arrangement in accordance with claim 1,  
characterised in that

each sealing wing (15,16) in radial direction has a relatively small cross-sectional dimension, increasing from a minimum at its outer end portion to a maximum at its inner end portion by the stem (14), and

10 each sealing wing (15,16) in a axial direction has a relatively large cross-sectional dimension, to obtain support of the sealing wings (15,16) along a major area of the respective support surfaces (21,25),

15 both cross-sectional dimension being relative in respect of the cross-sectional dimensions of the stem (14), which in axial as well as in radial direction is relatively large to provide a rather rigid stem (14).

20 3. Arrangement in accordance with claim 1 or 2,  
characterised in that

the counter face (22) extends continuously in axial direction and solely in one of the armature members (11,12), providing a continuous gliding support for the support face (14a) of the stem (14) directly against said  
25 counter face (22).

4. Arrangement in accordance with one of claims 1-3,  
characterised in that

30 the clamping means (30) comprises two in radial direction mutually overlapping armature member portions (26,27) extending radially outside of the sealing ring (13,13'),

35 said armature member portions (26,27) is supporting each other along mutually opposite conical support surfaces extending obliquely with a central axis of the sealing arrangement to provide a controlled stopp forming abutment between the armature member (11,12).

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5. Arrangement in accordance with one of claims 1-3 and claim 4, characterised in that  
the combination of the oblique extension of said mutually overlapping, stop forming armature member portions (26,27) and said elastically deformable wings (15,16) of the sealing ring (13,13') to provide controlled gliding movements in the sealing arrangement during use.

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